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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,447	06/21/2001	Michael Albert Haase	56033USA9A.002	5768

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EXAMINER

LEURIG, SHARLENE L

ART UNIT PAPER NUMBER

2879

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

23

Office Action Summary	Application No.		Applicant(s)	
	09/886,447		HAASE ET AL.	
	Examiner		Art Unit	
	Sharlene Leurig		2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-29 is/are allowed.
- 6) ☒ Claim(s) 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on January 16, 2004 has been entered and acknowledged by the Examiner. Claim 30 has been amended.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 30-32 stand rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al. (5,294,869) (of record).

Regarding claim 30, Tang discloses an organic light emitting color display panel comprising a plurality of full color pixels formed on a substrate, each full color pixel comprising a red, a green, and a blue subpixel (column 13, lines 22-31), an integrated shadow mask for forming the full color pixels, comprising a plurality of ribs (Figure 11, element 303) erected on the substrate, wherein the pitch of the ribs is smaller than the pitch of the pixels, and wherein the pitch of the ribs corrects for parallax in an angle deposition process.

For each pixel there are several ribs, where the pixel is the unit comprising the three sub-pixels illustrated in Figures 11-14; therefore the pitch of the ribs is smaller than the pitch of the pixels.

Though Tang is silent on the parallax correction of the integrated shadow mask, it teaches a structure that provides parallax correction. In depositing the electroluminescent layers, the source of the EL medium is positioned so the ribs are interposed between the source and the sub-pixels in order to achieve the desired deposition (column 3, lines 1-15; column 6, lines 40-59). This result is achieved by arranging the ribs on the substrate so that the pitch of the ribs is smaller than the pitch of the pixels.

Tang discloses a plurality of shadowed regions on the substrate where deposition of a colored dopant is blocked by the ribs during the angle deposition process. The shadowed regions vary in length across the substrate, as can be seen in Figure 2 where the electroluminescent material (107) is deposited only in certain regions (109) which vary in length in accordance with the height of the adjacent rib positioned between the area of deposition (109) and the source, which is not shown. Furthermore Tang discloses an integrated shadow mask that corrects for parallax in an angle deposition process, since the walls of the mask (Figure 11, element 303) are of a height that exceeds the thickness of the EL layer and "are capable of shadowing an adjacent sub-pixel area" (column 2, lines 33-37) and are interposed between the source of the EL medium and the adjacent sub-pixel (column 6, lines 50-55), which prevents EL material from being deposited in the wrong sub-pixel and requiring removal (column 6, lines 40-44). The applicant has defined "parallax" as the difference in shadow length at different points on a substrate caused by the source being a finite distance from the substrate. The source disclosed by Tang is a finite distance from the substrate and the

shadow lengths differ across the substrate because the source is a finite distance from the substrate. Therefore Tang discloses each and every limitation of the claim.

The process of depositing the EL medium can be considered an "angle deposition process" because the deposition source is at an angle to the substrate, as shown in Figure 2.

Although the Tang reference is silent on angle evaporation process the Examiner notes that the claim limitation of the OEL medium being obtained by means of an angle evaporation process is drawn to a process of manufacturing, which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be differentiated from the prior art by a process limitation. Consequently, absent a showing of a difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

Regarding claim 31, the mask comprises a photoresist (column 5, lines 62-65).

Regarding claim 32, the photoresist is a dry film photoresist (column 6, lines 5-9).

Allowable Subject Matter

4. Claims 23-29 are allowed.
5. The following is an examiner's statement of reasons for allowance: the reasons for allowance were enumerated in the last office action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2879

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

6. Applicant's arguments, filed March 25, 2004, with respect to claims 30-32, have been fully considered but they are not persuasive.

The applicant argued that amended claim 30 and its dependents are allowable over Tang et al. (5,294,869) because Tang fails to disclose the newly added claim limitation of the shadow lengths varying in length across the substrate. The applicant has argued that Tang does not teach a source at a finite distance from the substrate, and therefore the angles of deposition are parallel, resulting in equal shadow lengths across the substrate (page 4).

The examiner disagrees with the applicant's assertion that Tang discloses equal shadow lengths, as Figure 2 clearly illustrates differing shadow lengths resulting in different areas (109) of the subpixels being coated with the electroluminescent material (107) depending on the height of the adjacent rib between the deposition area and the source, which must be a finite distance from the substrate, as "finite" is defined as "bounded or limited in magnitude or spatial or temporal extent." Therefore Tang does describe each and every limitation of the present invention as claimed.

Therefore the rejection of claims 30-32 under Tang et al. (5,294,869) is maintained.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

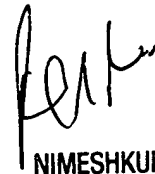
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2879

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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